



025200-038

**SUBSTITUTE SPECIFICATION
FILED MARCH 17, 2003**

BOTANICAL/COMMERCIAL CLASSIFICATION

Dendranthema grandiflora/Decorative Pot Mum

VARIETAL DENOMINATION

cv. 'Chanoud'

Summary of the Invention

The present invention comprises a new and distinct cultivar of Chrysanthemum, botanically known as *Dendranthema grandiflora*, and hereinafter is referred to by the cultivar name 'Chanoud'.

The new cultivar of the present invention was created at Nuaille, France during 1994 when plants of the 'Chadixi' cultivar (non-patented in the United States) were irradiated with gamma irradiation. Cuttings from the irradiated plant were used to produce new plants that were carefully studied. The new cultivar was selected during 1994 from among the rooted cuttings because of its distinctive combination of characteristics.

**SUBSTITUTE SPECIFICATION
FILED MARCH 17, 2003**

The 'Chadixi' parent was commercially available in France beginning in January 1992. The 'Chadixi' cultivar is not known to have ever been introduced for growing in the United States.

It was found that the new Chrysanthemum cultivar of the present invention displays:

- (a) a low compact, well-branched, and generally uniform and spherical growth habit,
- (b) during October a profusion of attractive decorative light yellow double blossoms,
- (c) dark green leaves that contrast well with the light yellow blossoms, and
- (d) an ability to grow well in pots to provide an attractive potted gift plant.

The new cultivar is considered to be primarily an October-flowering greenhouse cultivar with natural flowering in weeks 42 to 43 at Nuaille, France. It can be grown well either singly or in clumps in pots. Also, the new cultivar is suited for growing in the landscape where it has withstood temperatures of 0° to -2° C. The blossoms commonly last in excess of three weeks on the plant.

**SUBSTITUTE SPECIFICATION
FILED MARCH 17, 2003**

Pinching is helpful to further enhance branching; however, such pinching is not necessary since the plant already is naturally self-branching.

The new cultivar can be readily distinguished from its 'Chadixi' parent that exhibits purple blossoms. Unlike the 'Chadixi' parent the blossoms of the new cultivar of the present invention are light yellow in coloration. Such markedly different blossom coloration can be reliably used to distinguish the new cultivar from its parent.

Asexual reproduction of the new cultivar by cuttings initially taken during 1994 as performed at Nuaille, France, in a controlled environment has demonstrated that the characteristics of the new cultivar as herein described are firmly fixed and are retained through successive generations of asexual propagation.

The new cultivar also was tested during 1997 at Cambridge, Great Britain.

'Chanoud' has not been observed under all possible environmental conditions to date. Accordingly, it is possible that the phenotype may vary somewhat with variations in the environment, such as temperature, light, day length, contact with pesticides and/or subjection to growth regulation treatments.

**SUBSTITUTE SPECIFICATION
FILED MARCH 17, 2003**

Brief Description of the Photograph

The accompanying photograph was obtained during October, 1996 and depicts three plants of the new cultivar while growing in a pot in a greenhouse at Nuaille, France. The plants were rooted during June, 1996, and accordingly were approximately four months of age. The generally spherical growth habit and the profusion of attractive light yellow double decorative blossoms with dark green foliage are illustrated.

Detailed Description

The chart used in the identification of colors described hereafter is the R.H.S. Colour Chart of the Royal Horticultural Society, London, England. In some instances more common color terms are provided and are to be accorded their usual dictionary significance. The plants described were grown in 20 cm. pots in greenhouses at Nuaille, France, three plants to a pot, and were rooted in mid-June, and were observed on October 20th. No growth regulation was used. The growing conditions approximated those commonly utilized for the commercial production of decorative pot mums.

**SUBSTITUTE SPECIFICATION
FILED MARCH 17, 2003**

Inflorescence:

A. Capitulum

- | | |
|--------------------------------|---|
| <u>Type.</u> | - Decorative. |
| <u>Diameter across face.</u> | - Approximately 25 to
35 mm on average when
fully expanded. |
| <u>Bud shape.</u> | - Rounded and wider than
long. |
| <u>Bud size.</u> | - Approximately 8 to 12 mm
in length on average and
approximately 12 to 16 mm
in diameter on average. |
| <u>Outside bud coloration.</u> | Yellow Group 10B. |
| <u>Number per plant.</u> | - Varies with cultural
conditions. A 20 week old
plant commonly bears
approximately 600 to 900
flowers. |

**SUBSTITUTE SPECIFICATION
FILED MARCH 17, 2003**

Peduncle.

- Commonly varies in length from approximately 2 to 5 cm on average and the diameter commonly is 1 to 3 mm on average. The color is near Yellow-Green Group 146C.

Phyllaries.

- Five in number, elongated and possess pointed tips, approximately 8 to 15 mm in length on average, approximately 2 to 3 mm in width on average, and near Green Group 139A in coloration.

**SUBSTITUTE SPECIFICATION
FILED MARCH 17, 2003**

B. Ray florets

General tonality.

- Upper Surface: Yellow
Group 5D with some very
light red that increases
slightly towards the base.
Such red coloration is
difficult to describe more
fully and commonly
requires the destruction of
the flower for it to become
apparent.

- Under Surface: Yellow
Group 5D.

Number of ray florets.

- Varies with flower position
on the inflorescence and
cultural conditions.
Commonly approximately
120 to 180 on average.

**SUBSTITUTE SPECIFICATION
FILED MARCH 17, 2003**

Size of ray florets.

- Varies with position and commonly range from approximately 0.8 to 3.5 cm in length on average and from approximately 0.2 to 0.6 cm in width on average.

In contrast the floret coloration of the parent 'Chadixi' variety is Purple Group 75C with some slightly deeper shading and edges of Purple Group 75B.

**SUBSTITUTE SPECIFICATION
FILED MARCH 17, 2003**

Configuration ray florets. - Acropetal with a dentate apex, a substantially straight base and a smooth margin.

Disc florets. - These commonly are absent under standard growing conditions.

C. Reproductive organs

Androecium. - Present with ray florets at the center of the capitulum. When disc florets are observed, androecium commonly are present in such disc florets.

Gynoecium. - Present with ray florets at the center of the capitulum at the end of blooming.

**SUBSTITUTE SPECIFICATION
FILED MARCH 17, 2003**

When disc florets are
observed, gynoecium
commonly are absent in
such disc florets.

Pollen.

- Generally formed in only a
slight quantity at the end of
blooming and yellow-
orange in coloration.

Fragrance.

- Weak and typical of
Chrysanthemum

Plant:

A. General Appearance

Height.

- Very short, and
approximately 35 cm on
average at four months of
age.

**SUBSTITUTE SPECIFICATION
FILED MARCH 17, 2003**

Width: - Approximately 55 cm on
average at four months of
age.

B. Foliage

Color. - Upper Surface: Generally
between Green Group
137A and Green Group
139A.
- Under Surface: Generally
between Green Group
137A and Green Group
139A with slightly more
grey.

**SUBSTITUTE SPECIFICATION
FILED MARCH 17, 2003**

Shape.

- Relatively short and narrow with short inferior lobes. The shape of the sinus base between lateral lobes is rounded.

Size.

- The leaves at the tip of the stem commonly are approximately 3.5 cm in length and commonly are approximately 1.7 cm in width. The leaves at the base of the stem commonly are approximately 10 cm in length and commonly are approximately 5 cm in width.

Bearing.

- Petiolate.

**SUBSTITUTE SPECIFICATION
FILED MARCH 17, 2003**

- | | |
|---|--|
| <u>Texture.</u> | - Fleshy. |
| <u>Thickness.</u> | - Moderately thick. |
| <u>Serration.</u> | - Finely denticulate. |
| <u>Shape of base of leaf.</u> | - Acute with an obtuse
tendency. |
| <u>Shape of tip of leaf.</u> | - Mucronate. |
| <u>Claw in base of sinus
between lateral lobes.</u> | - Absent. |
| <u>Petiole.</u> | - Approximately 0.5 to 2 cm
in length, and
approximately 2 to 4 mm
in thickness. The
coloration commonly is
very close to that of the
leaves, and generally is
between Green
Group 137A and Green
Group 139A. |

**SUBSTITUTE SPECIFICATION
FILED MARCH 17, 2003**

Stems. - Thin to medium and generally round in cross-section, strongly rigid, and commonly Yellow-Green Group 146C in coloration with no anthocyanin coloration.

Internode length. - Very short, and commonly approximately 5 to 10 mm.

C. Resistance to Diseases

Requires no particular treatment when compared to other Chrysanthemum varieties.

D. Resistance to Insects

Requires no particular treatment when compared to other Chrysanthemum varieties.

**SUBSTITUTE SPECIFICATION
FILED MARCH 17, 2003**

E. Response Period

The 'Chanoud' cultivar is natural blooming and the reaction period is not considered to be a significant characteristic.

However, such reaction period has been observed to commonly vary between 7.5 and 8.5 weeks.